

Utah Influenza Report

This report contains data through the week ending 4/06/2013 (MMWR week 14).

Overview of Influenza Surveillance: Surveillance for the 2012-2013 influenza season officially began on September 30, 2012. The Utah Department of Health publishes a weekly report throughout the active influenza season that synthesizes data from a variety of sources to give the most complete and up-to-date picture of influenza activity in the state of Utah. Data in this report should be considered provisional, and may change as more complete reports are received.

Influenza-like Illness (ILI): The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) is a national system that conducts surveillance for influenza-like illness (ILI) in outpatient healthcare facilities. ILINet providers report weekly the total number of patients seen for any reason and the number of patients seen with ILI (defined as a fever $\geq 100^{\circ}$ F and a cough or sore throat). These data are used to determine the amount of ILI circulating in the community, as well as provide insight into regional differences in ILI activity. Currently, more than 50 facilities throughout Utah participate in ILINet.

Figure 1. Weekly Influenza-like Illness Activity

Influenza-like illness (ILI) activity as measured by the number of standard deviations from the epidemic threshold - Utah, 2012-2013

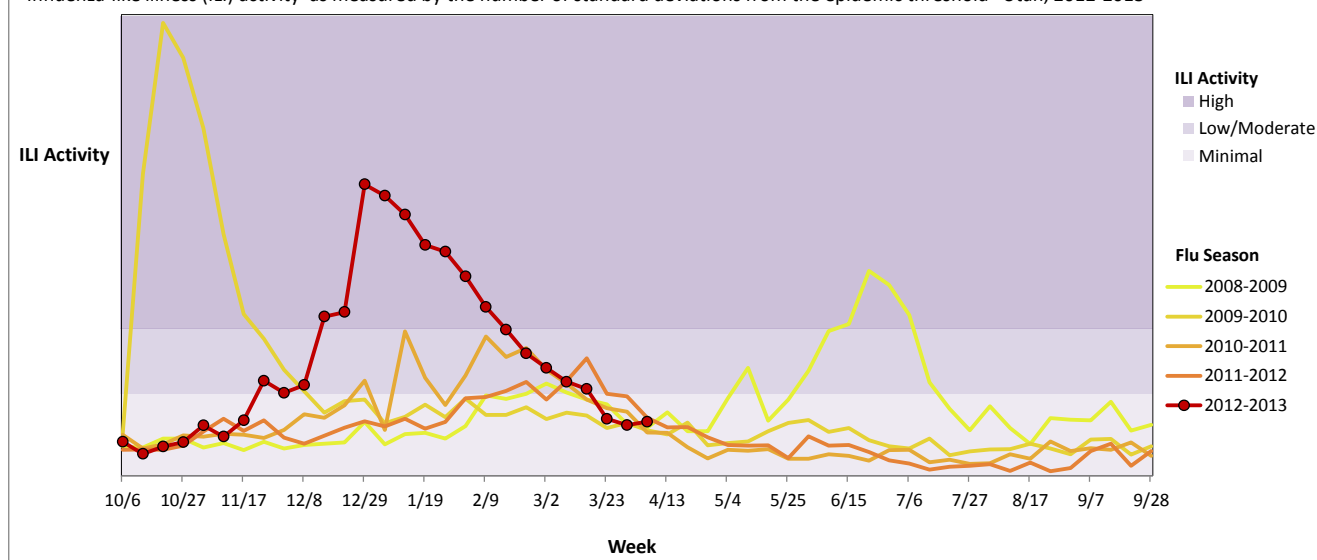


Table 1. Influenza-like Illness (ILI) Activity Levels by Health District - Utah, Current Week

Health District	ILI Activity
Bear River	Minimal
Central	Minimal
Davis	Minimal
Salt Lake	Minimal
Southeastern	No Data
Southwest	Minimal
Summit	Minimal
Tooele	Minimal
TriCounty	No Data
Utah	Minimal
Wasatch	Minimal
Weber-Morgan	Minimal
State	Minimal

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Influenza Hospitalizations: Influenza hospitalizations are a reportable condition in Utah. A person meets the case definition for an influenza hospitalization if they are hospitalized for any length of time and have an influenza positive serology, DFA, PCR, or culture test (confirmed case) or a positive rapid influenza diagnostic test (probable case). Public health in Utah gathers a variety of data on influenza hospitalizations including clinical features, course of illness, risk and protective factors, and influenza type and subtype. Data from influenza hospitalizations allows public health in Utah to better understand subgroups of the Utah population that are most severely effected by influenza and help to guide prevention messages and interventions.

Figure 2. Influenza Hospitalizations

Number of influenza hospitalizations by event date* - Utah, 2012-2013

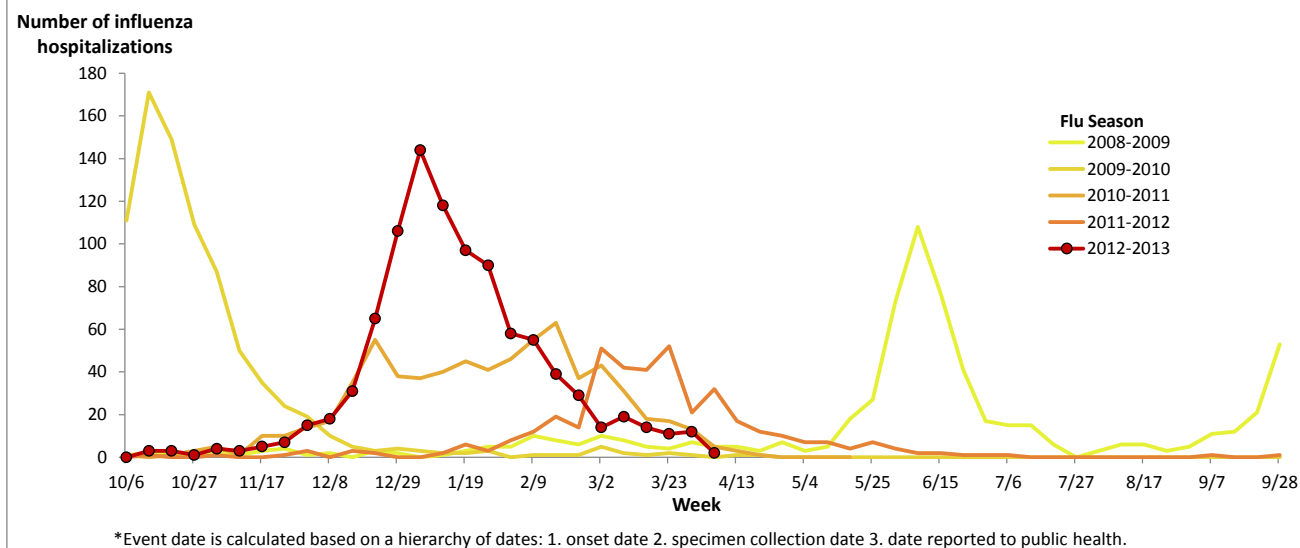


Table 2. Influenza Hospitalizations by Case Status - Utah

Case Status	Current Week		Season To Date	
	Total	% of Cases	Total	% of Cases
Confirmed	2	100.0	906	94.1
Probable	0	0.0	57	5.9
Total	2	100.0	963	100.0

Table 3. Influenza Hospitalizations by Health District - Utah

Health District	Current Week	Season To Date
Bear River	1	50
Central	0	42
Davis	0	70
Salt Lake	1	433
Southeastern	0	3
Southwest	0	103
Summit	0	14
Tooele	0	5
TriCounty	0	16
Utah	0	149
Wasatch	0	4
Weber-Morgan	0	74
State	2	963

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Table 4. Influenza Hospitalizations by Age Group - Utah, Season To Date

Age Group	Total Cases	% of Cases	Rate*
0-4	191	19.8	70.58
5-24	136	14.1	14.37
25-49	121	12.6	12.20
50-64	131	13.6	32.71
65+	384	39.9	155.47
Total	963	100.0	33.72

*Rate is calculated as the number of cases per 100,000 population

Table 5. Influenza Hospitalizations by Sex and Race - Utah, Season To Date

Variable		Num. of Cases	% of Cases	% in Utah Pop	p value*
Sex	Male	472	49.0	50.3	0.4238
	Female	491	51.0	49.7	0.4238
	Unknown	0	0.0	NA	--
Race	White, Not Hispanic	761	79.0	82.0	0.0148
	Hispanic	132	13.7	11.6	0.0399
	Native Hawaiian/Pacific Islander	30	3.1	0.7	<0.0001
	Black/African American	16	1.7	0.9	0.0187
	American Indian	3	0.3	1.1	0.0161
	Asian	21	2.2	1.9	0.4751
	Unknown	0	0.0	NA	--

*If a p value is ≤ 0.05 , there is a significant difference between the percentage seen in influenza hospitalizations and the general Utah population.

Table 6. Summary Data for Influenza Hospitalizations - Utah, Season To Date

Variable	Yes		No		Unknown	
	Total	% of Cases	Total	% of Cases	Total	% of Cases
ICU	154	16.0	736	76.4	73	7.6
Ventilator	56	5.8	837	86.9	70	7.3
Died	32	3.3	866	89.9	65	6.7
Neurological Symptoms	113	11.7	760	78.9	90	9.3
Healthcare Worker	7	0.7	555	57.6	401	41.6
Pregnant	31	3.2	921	95.6	11	1.1
Heart Disorder	293	30.4	589	61.2	81	8.4
Blood Disorder	24	2.5	855	88.8	84	8.7
Kidney Disorder	85	8.8	794	82.5	84	8.7
Metabolic Disorder	239	24.8	642	66.7	82	8.5
Chronic Respiratory Disorder	281	29.2	603	62.6	79	8.2
Immunosuppressed	93	9.7	781	81.1	89	9.2
Neurological Disorder	113	11.7	760	78.9	90	9.3
Seizure Disorder	33	3.4	848	88.1	82	8.5
Bacterial Co-infection	15	1.6	864	89.7	84	8.7
Obese*	199	31.4	324	51.2	110	17.4
Morbidly Obese*	43	6.8	480	75.8	110	17.4
Risk Factor†	875	90.9	88	9.1	0	0.0
Vaccinated	344	35.7	419	43.5	200	20.8

*Obesity and morbid obesity is not considered for individuals under 18 years or pregnant women. Thus total counts will not equal the total number of influenza-associated hospitalizations

†Risk factors for influenza include: persons < 5 years, persons ≥ 65 years, pregnant women, and persons with a chronic medical condition.

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Student Absenteeism: School-age children are at high risk for respiratory virus infections, including influenza. Aggregate, all-cause absenteeism data is collected weekly from over 350 schools throughout Utah. These data are analyzed to identify elevated absenteeism rates that could indicate the circulation of influenza in school-age children.

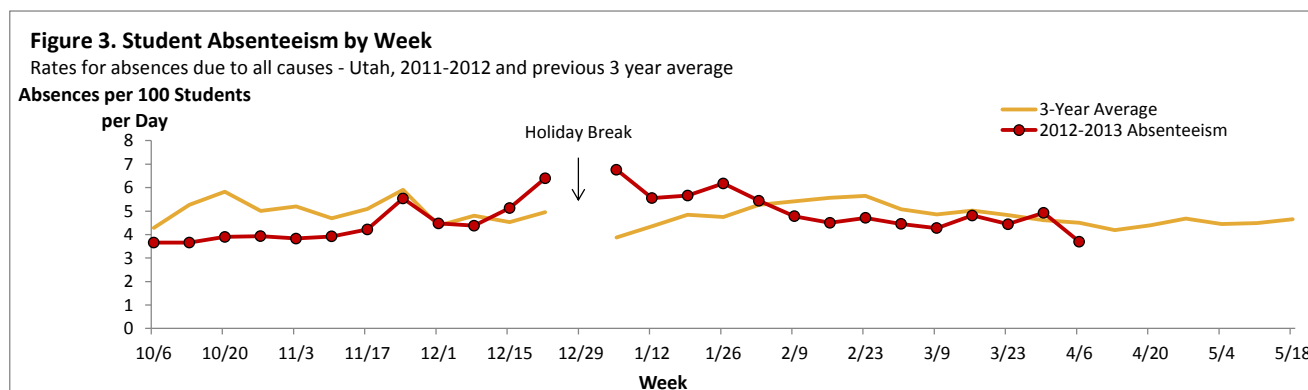
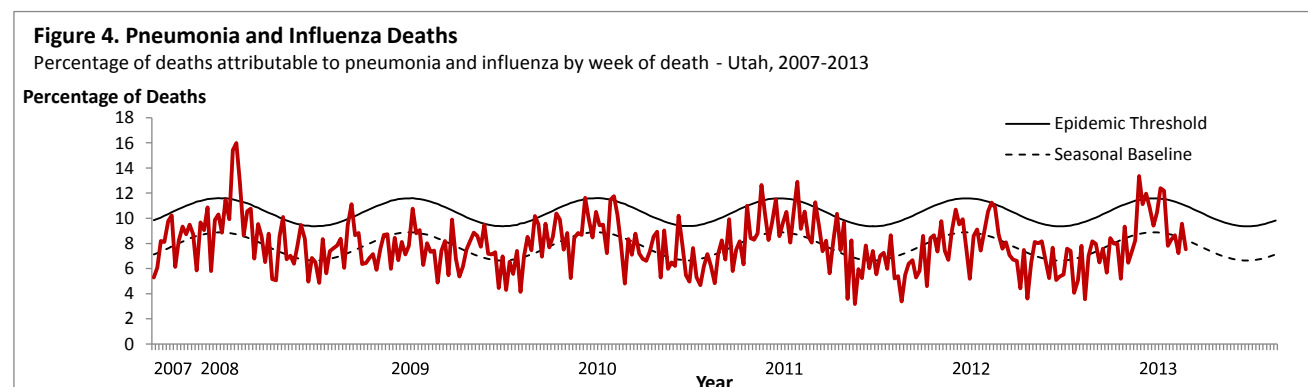


Table 7. Weekly Student Absenteeism - Utah, Current Week

Health District	Absences per 100 students/day
Bear River	4.8
Central	5.9
Davis	--
Salt Lake	3.5
Southeast	6.8
Southwest	4.8
Summit	8.7
Tooele	0.0
TriCounty	4.0
Utah	0.5
Wasatch	0.0
Weber-Morgan	5.7
State	4.0

Pneumonia and Influenza Deaths: Each week the total number of death certificates received and the number of those for which pneumonia or influenza was listed as an underlying or contributing cause of death is collected. The percentage of deaths due to pneumonia and influenza are compared with a seasonal baseline and epidemic threshold value calculated for each week. These data are used to monitor the severity of influenza illness in the community.



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Laboratory Surveillance: The Unified State Laboratory: Public Health receives specimens from all over the state for comprehensive influenza testing. All specimens are tested to determine influenza type and subtype. A portion of specimens are also sent to the Centers for Disease Control and Prevention for additional testing, including gene sequencing, antiviral resistance testing and antigenic characterization.

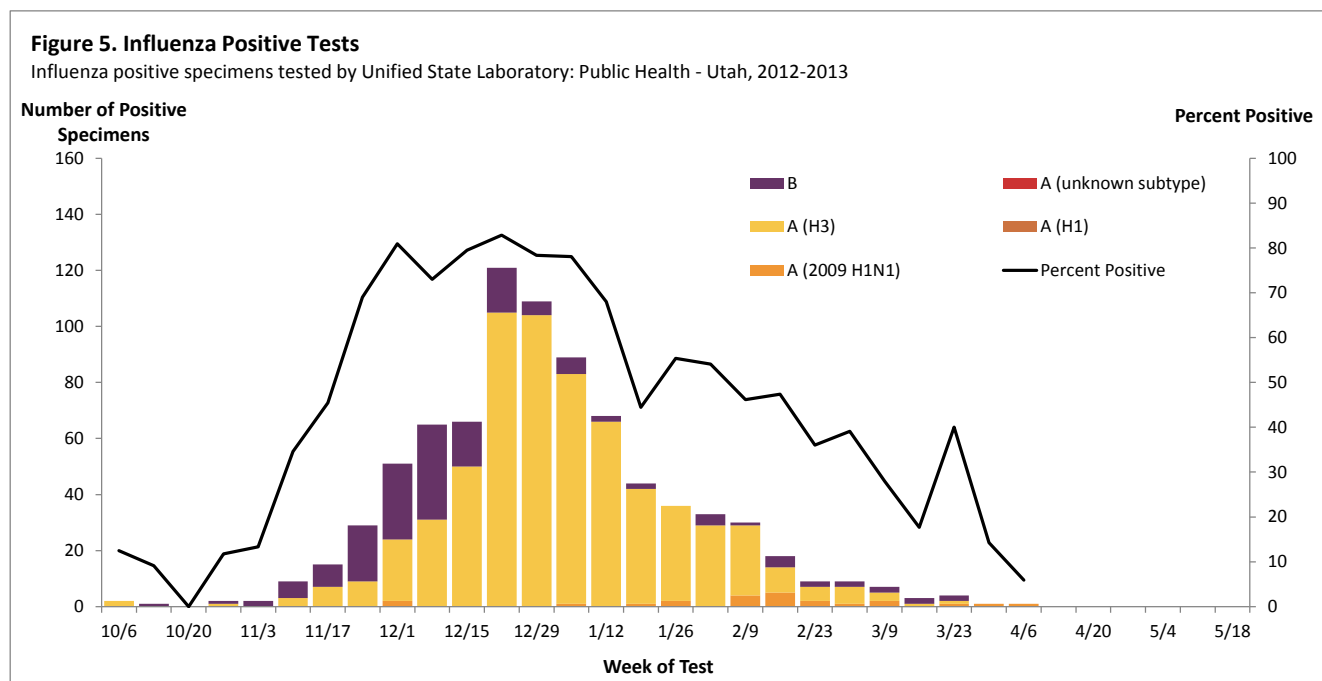


Table 8. Unified State Laboratory: Public Health Influenza Testing Data

	Current Week		Season To Date	
	Total	Percent	Total	Percent
Specimens tested	17	--	1,355	--
Positive specimens	1	5.9	824	60.8
Positive Specimens by Type/Subtype				
Influenza A	1	100.0	659	80.0
A (2009 H1N1)	1	100.0	23	3.5
A (H1)	0	0.0	0	0.0
A (H3)	0	0.0	636	96.5
A (unable to subtype)	0	0.0	0	0.0
Influenza B	0	0.0	165	20.0